



Science & Technology  
Facilities Council

# NetCDF Climate Forecast Conventions (CF) Status

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# Outline

- **Bad News**
  - CF Conventions Moving Slowly
- **Good News**
  - NOAA Involvement
  - CF Standardisation
  - *Gridspec progress*
  - *Standard Names Growth*
- **Next Steps**
  - New CF Committee
  - New CF meeting?



# CF Conventions Progress

| Ticket ▲ | Summary  | Status   | Owner                            | Type        | Priority | Milestone |
|----------|--|----------|----------------------------------|-------------|----------|-----------|
| 24       | Common Concept: vocabulary with mapping to CF attributes                                     | new      | cf-conventions@lists.llnl.gov    | enhancement | medium   |           |
| 27       | Use namespace tags to include other conventions in netcdf files without repeating them in CF | assigned | edavis                           | enhancement | medium   |           |
| 29       | Common Concept subtopic: CDL as constraint language  | new      | cf-conventions@lists.llnl.gov    | enhancement | medium   |           |
| 31       | Proposal for standard attributes actual_min and actual_max                                   | new      | cf-conventions@lists.llnl.gov    | enhancement | medium   |           |
| 33       | New cell_method 'count over days'  | new      | cf-conventions@lists.llnl.gov    | enhancement | medium   |           |
| 37       | Conventions for Point Observation Data   | new      | cf-conventions@lists.llnl.gov    | enhancement | medium   |           |
| 38       | Coordinate Systems checks for CF-1.1   | new      | cf-checker@lists.llnl.gov        | task        | medium   |           |
| 43       | Upgrade CF checker to CF-1.4   | assigned | ros                              | task        | medium   |           |
| 46       | Support for thematic data?   | new      | cf-standard-names@lists.llnl.gov | task        | medium   |           |
| 47       | error in example 7.4   | new      | cf-conventions@lists.llnl.gov    | defect      | medium   |           |

Good: only ten open tickets

# One to two years on ...

## Ticket #24 (new enhancement)

Common Concept: vocabulary with mapping to CF attributes

Opened 2 years ago  
Last modified 10 months ago

## Ticket #27 (assigned enhancement)

Use namespace tags to include other conventions in netcdf files without repeating them in CF

Opened 2 years ago  
Last modified 10 months ago

## Ticket #29 (new enhancement)

Common Concept subtopic: CDL as constraint language

You get the picture ...  
... the other five are  
respectively:  
1Yr, 1 Yr, 9m, 9m,  
5m

## Ticket #31 (new enhancement)

Proposal for standard attributes `actual_min` and `actual_max`

Opened 1 year ago  
Last modified 1 year ago

## Ticket #33 (new enhancement)

New cell\_method 'count over days'

Opened 1 year ago  
Last modified 1 year ago



# NOAA Involvement

- Strong interest by the US National climate Data Centre to use and promote CF conventions. Ken Roberts will be the person at NCDC who over time will take on CF ...
- ... initial interest focus on additions to the CF standard names structure on topics that are of specific interest to NCDC: reanalysis output datasets, satellite observations, in-situ observations ...
- Longer term aim to take on a bigger role in the conventions development by tracking software implementations and moving things from proposals to accepted specifications.
- Bring to three folks who have (funded part-time) roles in CF governance, with PCMDI, NCDC and BADC all contributing
  - (obviously in addition to major contributions by existing unfunded folks such as Jonathan Gregory etc).



## CF standardisation

- Work underway to standardize the netcdf binary format includes:

- NASA standard, and
- Work to standardise within the OGC fold.

- This is in part motivated by the ocean community interest in station data standards.

- Opportunities:

- Engage a larger community of users.
- Engage a process to move things along.

### Threats:

- Loss of control by this community of the process and the results?
- (We can hardly argue that it will slow progress of the convention evolution).



## Proposal to Govern Model Metadata

- METAFOR is generating conventions for describing models and simulations.
- Describing hundreds of “parameterisation, model and component” level vocabularies.
- Currently working with a number of science groups. We'll see the outcome in the CMIP5 questionnaire.
- Long term success of this effort will depend on vocabulary governance.
- Proposal to create a “third” CF standing committee, with TOR aimed at governing the evolution of these vocabularies post CMIP5.



## Next Steps

- Really need to improve our procedure for moving CF along
  - ...
- Needs more (funded) effort, and needs more community engagement.
- Recommendation:
  - New CF meeting, in six months or so (~April)
  - Do it as a a CF standalone workshop.
  - Introduce our new CF NCDC friends (and others) to the old guard.
  - Actually do some “convention sprinting”